

ABSTRACT OF THE DISCLOSURE

A method is provided for reducing power dissipation within a communications system having a plurality of adaptive filters with a plurality of taps, each tap is switchable between an active and an inactive state, each tap also has a coefficient. An acceptable error for the system is specified. This error is typically the mean squared error of the system. A tap threshold is set for each active tap. Those taps having a coefficient with an absolute value less than the tap threshold set for the active tap are deactivated. The error of the system is computed and compared to the acceptable system error. If the computed system error is less than the acceptable system error, the tap threshold for each active tap is increased. The process of comparing the tap coefficients to the tap thresholds, deactivating taps with a coefficient less than the tap threshold and computing the resulting system error is repeated until the computed system error approaches the acceptable system error without exceeding the acceptable system error. In addition, the previously deactivated taps may be periodically activated and their coefficients once again compared to the tap threshold. If a coefficient is less than the tap threshold the tap is again deactivated. If a coefficient is greater than the tap threshold, the tap remains active.